



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,658	04/27/2001	Chester G. Nelson	P-8850.00	9007
27581	7590	01/04/2005	EXAMINER	
MEDTRONIC, INC. 710 MEDTRONIC PARKWAY NE MS-LC340 MINNEAPOLIS, MN 55432-5604			CHANKONG, DOHM	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/844,658

Applicant(s)

NELSON ET AL.

Examiner

Dohm Chankong

Art Unit

2152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2152

DETAILED ACTION

- 1> Claims 1-25 are presented for examination.

Claim Rejections - 35 USC § 102

- 2> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 3> Claims 1-4, 9-13, 15, 17, 18, 20, 21 and 23-25 are rejected under 35 U.S.C § 102(e) as being unpatentable over Snell, U.S Patent No. 6.249.705.

- 4> As to claim 1, Snell discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized interfaces to medical device interface instruments and IMDs [abstract | column 4 «lines 14-17» | column 7 «lines 24-37»];

at least one hardware module capable of executing the software components with the at least one hardware module being deployable to a plurality of medical device interface instruments; said hardware module having means for communication with a data

Art Unit: 2152

communications network, and with a medical device external to the hardware module

[column 2 «lines 6-19» | column 6 «lines 16-37»].

5> As to claim 2, Snell discloses the computerized component architecture for medical device systems of claim 1, wherein at least one hardware module has processing and telemetry capabilities [Figure 2 «items 108, 120» | column 6 «lines 16-37»].

6> As to claim 3, Snell discloses the computerized component architecture for medical device systems of claim 1, wherein at least one hardware module is installed within an interface instrument, to which it is deployable [column 4 «lines 42-55» | column 6 «lines 16-37»].

7> As to claim 4, since Snell does disclose that the software architecture is specifically designed and programmed to be run on the hardware modules [column 7 «lines 24-39»], the programs would be inherently optimized for the hardware modules.. As Snell's software is designed to be run on the hardware modules, the software should be optimized for execution on the hardware.

8> As to claim 9, Snell discloses a software component-based IMD administration and control instrument, comprising:

a master processing instrument having network communications capabilities [Figure 2 «items 104, 124»];

Art Unit: 2152

an electronics module having telemetry and processing capabilities installed within said master processing instrument [Figure 2 «items 108, 120»];

at least one component software module resident within the memory of said electronics module [Figure 2 «items 106, 114» | column 6 «lines 16-29» | column 7 «lines 36-39»].

9> As to claim 10, Snell discloses the component-based IMD administration and control instrument of claim 9, wherein the master processing instrument comprises an IMD programmer [Figure 1 «item 104»].

10> As to claim 11, Snell discloses the component-based IMD administration and control instrument of claim 9, wherein the master processing instrument comprises an IMD extender [column 7 «lines 41-54» where: Snell's instrument includes security functions which extend the functionality of the IMD].

11> As to claim 12, Snell discloses the component-based IMD administration and control instrument of claim 9, wherein the master processing instrument comprises an IMD interactive remote monitor [column 3 «lines 43-60»].

12> As to claim 13, Snell discloses an IMD monitoring and administration network environment implementing reusable and extendable software, comprising:

at least one IMD in communication with at least one IMD interface device [Figure 1

«items 104 and 105»];

at least one of said IMD interface device having installed interface software in message-passing relation with at least one network interface [column 4 «lines 42-55» | column 6 «lines 32-41»];

at least one of said network interface being in message-passing relation with at least one user node [Figure 2 | column 6 «lines 32-41»].

13> As to claim 15, Snell discloses the IMD monitoring and administration network of claim 13, wherein the message-passing relation between the interface software installed on said IMD interface and said network interface is capable of transmitting analog representations of patient waveform data [column 7 «lines 1-10» | column 11 «lines 12-29» where: Snell's ECG is comparable to patient waveform data].

14> As to claim 17, Snell discloses the IMD monitoring and administration network environment of claim 15 further comprising a live waveform software component [Figure 2 «item 122» | column 2 «lines 16-21» where: Snell's ECG is comparable to a waveform]; and

a client live waveform viewer software component wherein graphical information is transmitted from the live waveform software component to the client live waveform viewer software component [Figure 2 «items 118, 122» | column 6 «lines 30-32» | column 11 «lines 16-20»].

15> As to claim 18, Snell discloses the IMD monitoring and administration network environment of claim 17, wherein the graphical information is transmitted via a markup language [column 6 «lines 1-10»].

16> As to claim 20, Snell discloses a method of implementing a compartmentalized, robust IMD monitoring and administration network, comprising the steps of:

establishing a data communications link between at least one IMD and one computer via an interface device [Figure 1 | column 3 «lines 13-36»];

programming at least one software component to execute on the interface device, the software component being capable of message-passing communications over data communications media [column 6 «lines 33-49» | column 7 «lines 18-39» | column 8 «lines 17-19»];

programming at least one software component to execute on a linked computer, said software component being capable of operating in a message-passing relationship with at least one software component designed to execute on the interface device [column 3 «lines 13-28» | column 5 «lines 30-37» where: Snell's server is analogous to a linked computer].

17> As to claim 21, Snell discloses the method of implementing a compartmentalized, robust IMD monitoring and administration network of claim 20, wherein the message-passing relationship is effected using a markup language [column 7 «lines 1-10»].

Art Unit: 2152

18> As to claim 23, Snell discloses the method of implementing a compartmentalized, robust IMD monitoring and administration network of claim 20, wherein the message-passing relationship is effected using client component function calls to public functions of the software component being messaged [column 3 «lines 21-42» | column 7 «lines 18-34» | column 8 «lines 44-46» where: Snell's executable programs and source code are analogous to public functions as they are equivalent in functionality].

19> As to claim 24, Snell discloses the method of implementing a compartmentalized, robust IMD monitoring and administration network of claim 23, wherein the software component being messaged is implemented in an object-oriented programming language [column 7 «lines 1-10»].

20> As to claim 25, Snell discloses the method of implementing a compartmentalized, robust IMD monitoring and administration network of claim 24, wherein the software component being messaged is implemented in a manner where it may return a software object in response to the public function call [column 7 «lines 18-34» | column 8 «lines 44-46»].

21> Claims 5-8 are rejected under 35 U.S.C § 102(b) as being unpatentable over Snell , U.S Patent No. 5,456,691 [“Snell.2”].

Art Unit: 2152

22> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23> As to claim 5, Snell.2 discloses an IMD administration network in which one or more interface instruments are in communication with a plurality of medical devices applied to one or more patients, a computerized software component system, comprising:

a defined body of interface definitions [abstract | column 3 «line 66» to column 4 «line 11» | column 4 «lines 39-43» where: Snell.2's modules are analogous in functionality to interface definitions];

at least one body of executable code capable of instructing or operating an IMD interface instrument, the body utilizing at least one of the objects to communicate with the instrument or with a computerized IMD administration network [column 4 «lines 39-54» | column 5 «lines 18-28» | where: Snell's program is analogous to executable code].

24> As to claim 6, Snell.2 discloses a computerized component architecture for medical device systems, comprising:

a body of software components having standardized software interfaces to medical device interface instruments [Figure 2 «item 34» | column 2 «lines 7-40» where: Snell.2's program modules are analogous to software components];

Art Unit: 2152

a computerized network of processing equipment with at least two nodes remote from each other [Figure 1 «items 12, 14, and 16»]; and

means for the execution of software components via these interfaces from remote processing equipment [column 2 «lines 7-40»].

25> As to claim 7, Snell.2 discloses the computerized component architecture of claim 6, further comprising a hardware module capable of executing the software components, said hardware module being deployable to a plurality of medical device interface instruments [Figure 1 «item 22» | column 3 «lines 61-67» | column 4 «lines 1-11»].

26> As to claim 8, Snell.2 discloses the computerized component architecture of claim 7, wherein said hardware module is integrated within at least one medical device interface instrument [Figure 1 «items 14 and 22»].

Claim Rejections - 35 USC § 103

27> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28> Claims 14, 16, 19 and 22 are rejected under 35 U.S.C § 103(a) as being unpatentable over Snell, in view of Sorge et al, U.S Patent No. 6,565,609 [“Sorge”].

29> As to claim 14, Snell discloses the IMD monitoring and administration network environment of claim 13, wherein the message-passing relation between the interface software installed on said IMD interface and said network interface is implemented by markup language document transmission [column 7 «lines 1-10»], but does not specifically XML.

30> XML is ubiquitous in the networking arts, and therefore one of ordinary skill in the art would have reasonably inferred that XML would be utilized as a substitute to HTML in Snell's message-passing system. Sorge further discloses that XML is common in the art and can be used in conjunction with HTML [column 6 «lines 1-10»]. It would have been obvious to one of ordinary skill in the art to incorporate XML in Snell's message-passing system for the stated advantages.

31> As to claim 16, Snell discloses the IMD monitoring and administration network environment of claim 15, wherein the analog representations of patient waveform data transmitted via the message passing relation between the interface software installed on said IMD interface and said network interface is implemented by document transmission [column 7 «lines 1-10» | column 11 «lines 12-29» where: Snell's ECG is comparable to patient waveform data], but does not specifically disclose SVG documents.

Art Unit: 2152

32> Sorge discloses utilizing SVG for transmitting images compatible with XML [column 6 «lines 39-52»]. It would have been obvious to one of ordinary skill in the art to implement Snell's image files as SVG as taught by Sorge. One would have been motivated to perform such an implementation because SVG would allow Snell's images to be scaled to any size or resolution without loss of data.

33> As to claim 19, Snell discloses the IMD monitoring and administration network environment of claim 17, wherein the graphical information is transmitted via a markup language [column 6 «lines 1-10»] but does not disclose SVG.

34> Sorge discloses utilizing SVG for transmitting images compatible with XML [column 6 «lines 39-52»]. It would have been obvious to one of ordinary skill in the art to implement Snell's image files as SVG as taught by Sorge. One would have been motivated to perform such an implementation because SVG would allow Snell's images to be scaled to any size or resolution without loss of data.

35> As to claim 22, Snell discloses the method of implementing a compartmentalized, robust IMD monitoring and administration network of claim 21, wherein the message-passing relationship is effected using a markup language [column 7 «lines 1-10»], but does not specifically XML.

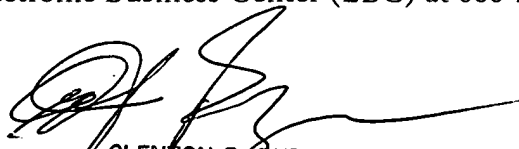
36> XML is ubiquitous in the networking arts, and therefore one of ordinary skill in the art would have reasonably inferred that XML would be utilized as a substitute to HTML in Snell's message-passing system. Sorge further discloses that XML is common in the art and can be used in conjunction with HTML [column 6 «lines 1-10»]. It would have been obvious to one of ordinary skill in the art to incorporate XML in Snell's message-passing system for the stated advantages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Application/Control Number: 09/844,658

Page 13

Art Unit: 2152

DC